

REMARKS

Claims 1-18 and 20-87 are pending in this application. Claims 1-15, 31-39 and 58-87 are currently withdrawn. By this Amendment, claims 16, 20, 21, 41, 47, 49, 50 and 52 are amended and claim 19 is canceled. Specifically, claim 19 is incorporated into claim 16. No new matter is added. The specification and the original claims support the claim amendments.

I. Rejections Under 35 U.S.C. §102(b)

A. Niu

Claims 16-19, 27-30, 40-46 and 53-57 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent Publication 2002/0008956 (hereinafter Niu).

As amended, claim 16 recites a method of manufacturing a carbon nanotube structure, comprising the steps of supplying a base body with a liquid solution containing carbon nanotubes that have functional groups, cross-linking the plural carbon nanotubes to one another by causing the functional groups to form chemical bonds among themselves to thereby form a mesh structure of the carbon nanotube structure and patterning the carbon nanotube structure layer into a desired shape (a patterning step) wherein the pattern step is selected from (A) dry etching on other regions of the carbon nanotube structure layer on the base body surface than a region to be patterned into the desired shape, thus removing the carbon nanotube structure layer from those regions and patterning the carbon nanotube structure layer into the desired shape and (B) a resist layer forming step of forming a resist layer on the region of the carbon nanotube structure layer on the base body surface that is to be patterned into a desired shape, and a removal step of removing the exposed portions of the carbon nanotube structure layer that are not covered with the resist layer by dry etching.

Niu nowhere discloses the patterning process of claim 16, wherein the patterning step includes dry etching on other regions of the carbon nanotube structure layer on the base body

surface than a region to be patterned into the desired shape, with or without a resist, thus removing the carbon nanotube structure layer from those regions and patterning the carbon nanotube structure layer into the desired shape. As such, Niu does not anticipate the method of claim 16 or claims dependent therefrom.

As amended, claim 41 recites a method of manufacturing a carbon nanotube structure, comprising the steps of applying a liquid solution containing carbon nanotubes that have functional groups to a surface of a temporary substrate, cross-linking the plural carbon nanotubes to one another by causing the functional groups to form chemical bonds among themselves to thereby form a mesh structure of a carbon nanotube structure layer, patterning the carbon nanotube structure layer into a desired shape wherein the patterning step is selected from (A) performing dry etching on other regions of the carbon nanotube structure layer on the temporary substrate surface than a region to be patterned into a desired shape, thus removing the carbon nanotube structure layer from those regions and patterning the carbon nanotube structure into a pattern of the desired shape and (B) a resist layer forming step of forming a resist layer on a region of the carbon nanotube structure layer on the temporary substrate surface that is to be patterned into a desired shape and a removal step for bringing an etchant into contact with a side of the temporary substrate where the carbon nanotube structure layer and the resist layer are layered, thereby removing the carbon nanotube structure layer from the exposed regions that are not covered with the resist layer, and transferring the patterned carbon nanotube structure layer to a base body.

Niu also does not teach the method of making the carbon nanotube of claim 41. Nowhere does Niu disclose performing dry etching on other regions of the carbon nanotube structure layer on the temporary substrate surface than a region to be patterned into a desired shape, with or without a resist, thus removing the carbon nanotube structure layer from those regions and patterning the carbon nanotube structure into a pattern of the desired shape, and

transferring the patterned carbon nanotube structure layer to a base body. As such, Niu does not anticipate the method of claim 41 or claims dependent therefrom.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Horiuchi

Claims 16-19, 27-29, 40-46 and 53-56 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent Publication 2002/0122765 (hereinafter Horiuchi).

Horiuchi discloses a method for manufacturing carbon nanotube structures. However, Horiuchi, like Niu discussed above, does not disclose the patterning process of claim 16, wherein the patterning step includes dry etching on other regions of the carbon nanotube structure layer on the base body surface than a region to be patterned into the desired shape, with or without a resist, thus removing the carbon nanotube structure layer from those regions and patterning the carbon nanotube structure layer into the desired shape. As such, Horiuchi does not anticipate the method of claim 16 or claims dependent therefrom.

Likewise, Horiuchi does not teach the method of making the carbon nanotube of claim 41. Nowhere does Horiuchi disclose performing dry etching on other regions of the carbon nanotube structure layer on the temporary substrate surface than a region to be patterned into a desired shape, with or without a resist, thus removing the carbon nanotube structure layer from those regions and patterning the carbon nanotube structure into a pattern of the desired shape, and transferring the patterned carbon nanotube structure layer to a base body. As such, Horiuchi does not anticipate the method of claim 41 or claims dependent therefrom.

For the foregoing reasons, Applicants submit that Horiuchi fails to anticipate or render obvious the subject matter of the claims of the present application. Reconsideration and withdrawal of the rejection are respectfully requested.

II. Rejections Under 35 U.S.C. §102(e)

A. Park

Claims 16-19 and 27-29 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent Publication 2004/0101634 (hereinafter Park).*

Filed herewith is a verified translation of the foreign priority document JP 2003-279094. The present application claims priority to this document, which was filed in Japan on July 24, 2003. Park has an earliest U.S. filing date of November 17, 2003.

Therefore, the reference is antedated and removed as prior art against the present claims.

B. Manabe

Claims 16-19, 27-30, 40-46 and 53-57 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent Publication 2005/0064647 (hereinafter Manabe).

Filed herewith is a verified translation of the foreign priority document JP 2003-279094. The present application claims priority to this document, which was filed in Japan on July 24, 2003. Manabe has an earliest U.S. filing date of January 30, 2004.

Therefore, the reference is antedated and removed as prior art against the present claims.

C. Watanabe

Claims 16-30 and 40-57 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent Application Publication 2005/0040371 (hereinafter Watanabe).

Filed herewith is a verified translation of the foreign priority document JP 2003-279094. The present application claims priority to this document, which was filed in Japan on July 24, 2003. Watanabe has an earliest U.S. filing date of January 29, 2004.

* Now U.S. Patent No. 7,008,758

Therefore, the reference is antedated and removed as prior art against the present claims.

III. Rejoinder

Applicants submit that upon allowance of the elected claims, claims 1-15, 31-39 and 58-87 should be rejoined with the application and similarly allowed.

VI. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-18 and 20-87 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:

Verified Translation of JP 2003-279094

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